

CLAIM OR CLAIMS

1. A method for controlling the rotation of a bottle during the mounting of a cap onto the bottle, the bottle having a lifter ring with a ring top, a ring side, and a ring bottom, the method
5 adapted for use in a machine providing a first structure moving in relation to a second structure, the method comprising:

frictionally engaging the lifter ring using a groove connected to the first structure; and

slidably engaging the lifter ring with the second structure.
- 10 2. The method of claim 1, wherein the frictional engagement of the lifter ring occurring on the top of the lifter ring.
3. The method of claim 1, the frictional engagement of the lifter ring occurring on the side
of the lifter ring.
- 15 4. The method of claim 1, the frictional engagement of the lifter ring using an elastic frictionally engaging material placed into the groove.
5. The method of claim 1, further comprising:
20 hingably connecting the groove to the first structure; and

biasing the groove against the lifter ring.
6. The method of claim 1, wherein the bottle spins in relation to the second structure.

7. A method for controlling a bottle during the mounting of a cap onto the bottle using a capping turret spinning in a first spin direction, the bottle having a lifter ring with a ring top, a ring side, and a ring bottom, the method adapted for use in a machine providing a first structure moving in relation to a second structure, the method comprising:

5 spinning the bottle in a second spin direction opposite to the first spin direction of the capping head.

8. A bottle control apparatus adapted to control the rotation of a bottle during the mounting of a cap onto the bottle, the bottle having a lifter ring with an upper surface, a side surface, and a
10 bottom surface, the apparatus adapted to for use in a machine providing a first structure moving in relation to a second structure, the apparatus comprising:

a frictional engagement groove mounted on the first structure; and

a lifter ring slide support mounted to the second structure.

15 9. The apparatus of claim 8, wherein the frictional engagement groove and lifter ring slide support are adapted to cause a rotation of the bottle.

10. The apparatus of claim 9, the frictional engagement groove contacting the upper surface of the lifter ring.

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11. The apparatus of claim 9, the frictional engagement groove contacting the side surface of the lifter ring.

12. The apparatus of claim 9, the frictional engagement groove hingably mounted on the first structure, the apparatus further comprising:

a biasing spring connected to the first structure and adapted to bias the groove against the lifter ring.

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13. The apparatus of claim 9, the frictional engagement groove fixably mounted on the first structure.

14. A bottle control apparatus for a capping machine for installing a cap on a bottle having a
10 lifter ring with an upper surface, a side surface, and a lower surface, the capping machine using a stationary support structure and a rotating support structure, the bottle control apparatus comprising:

a spin control guide mounted to the stationary support structure, the spin control guide including a frictional controlling groove adapted to frictionally engage the lifter ring of the
15 bottle; and

a supporting slide plate mounted to the rotating support structure such that combination of the movement of the rotating support structure in relation to the stationary support structure and the frictional engagement of the lifter ring against the spin control guide causes the bottle to spin.

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15. The apparatus of claim 14, the controlling groove frictionally engaging the upper surface of the lifter ring.

16. The apparatus of claim 14, the controlling groove frictionally engaging the side surface of the lifter ring.

17. The apparatus of claim 14 further comprising:

5 a frictionally engaging material positioned in the controlling groove and adapted to engage the upper surface of the lifter ring.

18. The apparatus of claim 14 further comprising:

10 a frictionally engaging material positioned in the controlling groove and adapted to engage the side surface of the lifter ring.

19. The apparatus of claim 14 further comprising:

a hinge connecting the spin control plate to the stationary mounting structure; and
a spring biasing the spin control plate against the lifter ring.

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